

Refine Search

Search Results -

Terms	Documents
L2 mmad	31

Database:

US Pre-Grant Publication Full-Text Database

US Patents Full-Text Database

US OCR Full-Text Database

EPO Abstracts Database

JPO Abstracts Database

Derwent World Patents Index

IBM Technical Disclosure Bulletins

Search:

L5

Refine Search

Recall Text

Clear

Interrupt

Search History

DATE: Tuesday, April 27, 2004 [Printable Copy](#) [Create Case](#)

<u>Set</u> <u>Name</u> side by side	<u>Query</u>	<u>Hit</u> <u>Count</u>	<u>Set</u> <u>Name</u> result set
<i>DB=PGPB,USPT,EPAB,JPAB,DWPI; PLUR=YES; OP=AND</i>			
<u>L1</u>	(FSH or "follicle stimulating hormone") (spray-dried or "spray dry" or "spray drying") (micron or particle or MMD or "particle size")	262	<u>L1</u>
<u>L2</u>	L1 amino carbohydrate buffer	112	<u>L2</u>
<u>L3</u>	L2 (alanine or glycine or tyrosine or leucine)	94	<u>L3</u>
<u>L4</u>	L3 hsa	28	<u>L4</u>
<u>L5</u>	L2 mmad	31	<u>L5</u>

END OF SEARCH HISTORY

Connecting via Winsock to STN

Welcome to STN International! Enter x:x

LOGINID:ssspta1619mxh

PASSWORD:

TERMINAL (ENTER 1, 2, 3, OR ?):2

* * * * * Welcome to STN International * * * * *

NEWS 1 Web Page URLs for STN Seminar Schedule - N. America
NEWS 2 "Ask CAS" for self-help around the clock
NEWS 3 JAN 27 Source of Registration (SR) information in REGISTRY updated
and searchable
NEWS 4 JAN 27 A new search aid, the Company Name Thesaurus, available in
CA/CAPLUS
NEWS 5 FEB 05 German (DE) application and patent publication number format
changes
NEWS 6 MAR 03 MEDLINE and LMedline reloaded
NEWS 7 MAR 03 MEDLINE file segment of TOXCENTER reloaded
NEWS 8 MAR 03 FRANCEPAT now available on STN
NEWS 9 MAR 29 Pharmaceutical Substances (PS) now available on STN
NEWS 10 MAR 29 WPIFV now available on STN
NEWS 11 MAR 29 No connect hour charges in WPIFV until May 1, 2004
NEWS 12 MAR 29 New monthly current-awareness alert (SDI) frequency in RAPRA
NEWS 13 APR 26 PROMT: New display field available
NEWS 14 APR 26 FIPAT/IFIUDB/IFICDB: New super search and display field
available
NEWS 15 APR 26 LITAlert now available on STN
NEWS 16 APR 27 NLDB: New search and display fields available

NEWS EXPRESS MARCH 31 CURRENT WINDOWS VERSION IS V7.00A, CURRENT
MACINTOSH VERSION IS V6.0c(ENG) AND V6.0Jc(JP),
AND CURRENT DISCOVER FILE IS DATED 13 APRIL 2004
NEWS HOURS STN Operating Hours Plus Help Desk Availability
NEWS INTER General Internet Information
NEWS LOGIN Welcome Banner and News Items
NEWS PHONE Direct Dial and Telecommunication Network Access to STN
NEWS WWW CAS World Wide Web Site (general information)

Enter NEWS followed by the item number or name to see news on that
specific topic.

All use of STN is subject to the provisions of the STN Customer
agreement. Please note that this agreement limits use to scientific
research. Use for software development or design or implementation
of commercial gateways or other similar uses is prohibited and may
result in loss of user privileges and other penalties.

* * * * * STN Columbus * * * * *

FILE 'HOME' ENTERED AT 17:50:01 ON 27 APR 2004

=> FIL STNGUIDE

COST IN U.S. DOLLARS

SINCE FILE

TOTAL

ENTRY

SESSION

FULL ESTIMATED COST

0.21

0.21

FILE 'STNGUIDE' ENTERED AT 17:50:06 ON 27 APR 2004
USE IS SUBJECT TO THE TERMS OF YOUR CUSTOMER AGREEMENT
COPYRIGHT (C) 2004 AMERICAN CHEMICAL SOCIETY, JAPAN SCIENCE
AND TECHNOLOGY CORPORATION, AND FACHINFORMATIONSZENTRUM KARLSRUHE

FILE CONTAINS CURRENT INFORMATION.
LAST RELOADED: Apr 23, 2004 (20040423/UP).

=> FIL HOME		
COST IN U.S. DOLLARS	SINCE FILE	TOTAL
	ENTRY	SESSION
FULL ESTIMATED COST	0.06	0.27

FILE 'HOME' ENTERED AT 17:50:08 ON 27 APR 2004

=> file caplus medline biosis		
COST IN U.S. DOLLARS	SINCE FILE	TOTAL
	ENTRY	SESSION
FULL ESTIMATED COST	0.21	0.48

FILE 'CAPLUS' ENTERED AT 17:50:23 ON 27 APR 2004
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.
COPYRIGHT (C) 2004 AMERICAN CHEMICAL SOCIETY (ACS)

FILE 'MEDLINE' ENTERED AT 17:50:23 ON 27 APR 2004

FILE 'BIOSIS' ENTERED AT 17:50:23 ON 27 APR 2004
COPYRIGHT (C) 2004 BIOLOGICAL ABSTRACTS INC.(R)

=> spray dried follicle stimulating hormone
SPRAY IS NOT A RECOGNIZED COMMAND
The previous command name entered was not recognized by the system.
For a list of commands available to you in the current file, enter
"HELP COMMANDS" at an arrow prompt (=>).

=> s spray dried follicle stimulating hormone
L1 0 SPRAY DRIED FOLLICLE STIMULATING HORMONE

=> s spray dry follicle stimulating
L2 0 SPRAY DRY FOLLICLE STIMULATING

=> s foliicle stimulating hormone
L3 0 FOLIICLE STIMULATING HORMONE

=> s follicle stimulating hormone
L4 49358 FOLLICLE STIMULATING HORMONE

=> s l4 and spray dried
L5 1 L4 AND SPRAY DRIED

=> d l5 all

L5 ANSWER 1 OF 1 CAPLUS COPYRIGHT 2004 ACS on STN
AN 2001:903796 CAPLUS
DN 136:25119
ED Entered STN: 14 Dec 2001
TI Protein powder for pulmonary delivery
IN Bhat, Meenakshi Ganapati; Cuff, George William; Wolff, Ronald Keith
PA Eli Lilly and Company, USA
SO PCT Int. Appl., 46 pp.
CODEN: PIXXD2
DT Patent
LA English

IC ICM A61K009-16
ICS A61K038-28; A61K009-50
CC 63-6 (Pharmaceuticals)
Section cross-reference(s): 2, 7, 15

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2001093837	A2	20011213	WO 2001-US16472	20010531
	WO 2001093837	A3	20020502		

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN,
CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH,
GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR,
LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT,
RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US,
UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY,
DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF,
BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG

PRAI US 2000-210423P P 20000608

AB This invention provides particles of a therapeutic protein core coated with a surfactant that are suitable for pulmonary delivery to the deep lung of a patient in need thereof. Spray drying processes for preparing powders of the core protein particles and powders of the respirable, surfactant-coated, therapeutic protein particles are provided. For example, insulin/DPPC (10:90) powder was prepared by spray drying using ethanol as a solvent. The **spray-dried** product was collected in 65.9% yield. The **spray-dried** DPPC-coated insulin powder showed prolonged time action in lowering blood glucose when administered by insufflation to rats.

ST protein powder surfactant coating lung delivery

IT Milling (size reduction)

(jet; preparation of surfactant coated-protein powder for pulmonary delivery)

IT Crystallization

(microcrystn.; preparation of surfactant coated-protein powder for pulmonary delivery)

IT Pulverization

(micronization; preparation of surfactant coated-protein powder for pulmonary delivery)

IT Solvents

(organic; preparation of surfactant coated-protein powder for pulmonary delivery)

IT Drug delivery systems

(powders, inhalants; surfactant coated-protein powder for pulmonary delivery)

IT Freeze drying

Milling (size reduction)

(preparation of surfactant coated-protein powder for pulmonary delivery)

IT Drying

(spray; preparation of surfactant coated-protein powder for pulmonary delivery)

IT Antidiabetic agents

Surfactants

(surfactant coated-protein powder for pulmonary delivery)

IT Antibodies

Enzymes, biological studies

Hormones, animal, biological studies

Proteins

RL: PEP (Physical, engineering or chemical process); PYP (Physical

process); THU (Therapeutic use); BIOL (Biological study); PROC (Process);

USES (Uses)

(surfactant coated-protein powder for pulmonary delivery)

IT Phospholipids, biological studies

RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(surfactant coated-protein powder for pulmonary delivery)

IT Drug delivery systems
(sustained-release, powders; surfactant coated-protein powder for pulmonary delivery)

IT 64-17-5, Ethanol, biological studies
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(preparation of surfactant coated-protein powder for pulmonary delivery)

IT 8049-62-5, Zinc insulin 9004-10-8, Insulin, biological studies
RL: PAC (Pharmacological activity); PEP (Physical, engineering or chemical process); PYP (Physical process); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)
(surfactant coated-protein powder for pulmonary delivery)

IT 9002-64-6, Parathyroid hormone 9002-68-0, **Follicle-stimulating hormone** 9002-72-6, Growth hormone 11096-26-7, Erythropoietin 89750-14-1, Glucagon-like peptide I 169494-85-3, Leptin 213190-65-9, Exendin
RL: PEP (Physical, engineering or chemical process); PYP (Physical process); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)
(surfactant coated-protein powder for pulmonary delivery)

IT 63-89-8, Dipalmitoylphosphatidylcholine
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(surfactant coated-protein powder for pulmonary delivery)

=> s spray dried and FSH
L6 2 SPRAY DRIED AND FSH

=> d l6 all

L6 ANSWER 1 OF 2 CAPLUS COPYRIGHT 2004 ACS on STN
AN 2003:334869 CAPLUS
DN 138:343893
ED Entered STN: 02 May 2003
TI Modulating charge density to produce improvements in the characteristics of **spray-dried** proteins
IN Lehrman, S. Russ; Stevenson, Cynthia; Yang, Bing
PA Inhale Therapeutic Systems, Inc., USA
SO PCT Int. Appl., 44 pp.
CODEN: PIXXD2
DT Patent
LA English
IC ICM A61K009-00
ICS A61K009-16
CC 63-6 (Pharmaceuticals)
Section cross-reference(s): 2, 15

FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2003035028	A1	20030501	WO 2002-US33016	20021016
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				

PRAI US 2001-330073P P 20011019

AB Methods are provided for preparing **spray-dried**, drug-containing particles comprising the steps of selecting (i) a drug and an

optional excipient, wherein the combination of the drug and optional excipient has an effective pI, and (ii) an aqueous solution having a pH that is different from the effective pI; (b) combining the solution and the drug and optional excipient, wherein an absolute net charge is associated with the drug and optional excipient as a result of an absolute difference between the pH and effective pI; and (c) spray drying the solution to form the **spray-dried**, drug-containing particles. Particles and compns. comprising the prepared particles as well as methods of use are also provided. For example, 1 mg/mL of interferon- β was mixed with 9 mg/mL raffinose and titrated with HCl to pH 4.0. The solution was **spray dried** to form particles for pulmonary delivery with ED of 67%.

ST protein charge density spray drying particle inhalant

IT Carbohydrates, biological studies

Salts, biological studies

RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(excipients; modulation of charge d. for improving characteristics of **spray-dried** protein particles for pulmonary delivery)

IT Drug delivery systems

(inhalants; modulation of charge d. for improving characteristics of **spray-dried** protein particles for pulmonary delivery)

IT Antimicrobial agents

Antioxidants

Electron density

Human

Particle size

Particle size distribution

Surfactants

(modulation of charge d. for improving characteristics of **spray-dried** protein particles for pulmonary delivery)

IT Acids, biological studies

Amino acids, biological studies

Bases, biological studies

RL: MOA (Modifier or additive use); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(modulation of charge d. for improving characteristics of **spray-dried** protein particles for pulmonary delivery)

IT Interleukin 4 receptors

Proteins

RL: PEP (Physical, engineering or chemical process); PRP (Properties); PYP (Physical process); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)

(modulation of charge d. for improving characteristics of **spray-dried** protein particles for pulmonary delivery)

IT Peptides, biological studies

RL: MOA (Modifier or additive use); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(oligopeptides; modulation of charge d. for improving characteristics of **spray-dried** protein particles for pulmonary delivery)

IT Drug delivery systems

(particles; modulation of charge d. for improving characteristics of **spray-dried** protein particles for pulmonary delivery)

IT Drying

(spray; modulation of charge d. for improving characteristics of **spray-dried** protein particles for pulmonary delivery)

IT Interferons

RL: PEP (Physical, engineering or chemical process); PRP (Properties); PYP (Physical process); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)

(β ; modulation of charge d. for improving characteristics of **spray-dried** protein particles for pulmonary delivery)

IT 50-21-5, Lactic acid, biological studies 52-90-4, L-Cysteine, biological studies 56-40-6, Glycine, biological studies 56-41-7, L-Alanine, biological studies 56-45-1, L-Serine, biological studies 56-86-0,

L-Glutamic acid, biological studies 56-87-1, L-Lysine, biological studies 60-18-4, L-Tyrosine, biological studies 61-90-5, L-Leucine, biological studies 63-68-3, L-Methionine, biological studies 63-91-2, L-Phenylalanine, biological studies 64-18-6, Formic acid, biological studies 64-19-7, Acetic acid, biological studies 70-47-3, L-Asparagine, biological studies 71-00-1, L-Histidine, biological studies 72-18-4, L-Valine, biological studies 72-19-5, L-Threonine, biological studies 73-22-3, L-Tryptophan, biological studies 73-32-5, L-Isoleucine, biological studies 74-79-3, L-Arginine, biological studies 76-03-9, Trichloroacetic acid, biological studies 77-92-9, Citric acid, biological studies 110-17-8, Fumaric acid, biological studies 127-08-2, Potassium acetate 127-09-3, Sodium acetate 141-53-7, Sodium formate 147-85-3, L-Proline, biological studies 327-57-1, L-Norleucine 631-61-8, Ammonium acetate 994-36-5, Sodium citrate 1115-90-8, 2-Aminoheptanoic acid 1310-58-3, Potassium hydroxide, biological studies 1310-73-2, Sodium hydroxide, biological studies 1336-21-6, Ammonium hydroxide 3303-31-9 4464-36-2 6600-40-4, L-Norvaline 6915-15-7, Malic acid 7601-90-3, Perchloric acid, biological studies 7632-05-5, Sodium phosphate 7647-01-0, Hydrochloric acid, biological studies 7664-38-2, Phosphoric acid, biological studies 7664-93-9, Sulfuric acid, biological studies 7697-37-2, Nitric acid, biological studies 7704-72-5, Potassium fumarate 7757-82-6, Sodium sulfate, biological studies 7778-80-5, Potassium sulfate, biological studies 10329-75-6 10329-76-7 16068-46-5, Potassium phosphate 19408-48-1 20274-80-0 20274-81-1 20274-82-2 20274-83-3 20368-24-5 34337-48-9 42293-99-2 45297-39-0 58337-00-1 58337-01-2 73303-32-9 74479-02-0 84676-47-1 85079-94-3 94941-89-6 108241-43-6 126828-33-9 126855-24-1 126855-32-1 126855-33-2 145125-40-2 152386-68-0 153013-15-1 156472-24-1 164523-81-3 288155-91-9 431038-22-1 457661-91-5 515857-20-2 515857-21-3 515857-22-4 515857-24-6 515857-25-7

RL: MOA (Modifier or additive use); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(modulation of charge d. for improving characteristics of **spray**
-dried protein particles for pulmonary delivery)

IT 9002-64-6, PTH 9002-68-0, FSH 9002-72-6, Growth hormone
9004-10-8, Insulin, biological studies 47931-85-1, Salmon calcitonin
82030-87-3, Methionyl human growth hormone

RL: PEP (Physical, engineering or chemical process); PRP (Properties); PYP (Physical process); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)

(modulation of charge d. for improving characteristics of **spray**
-dried protein particles for pulmonary delivery)

IT 69-65-8, D-Mannitol 512-69-6, D-Raffinose

RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(modulation of charge d. for improving characteristics of **spray**
-dried protein particles for pulmonary delivery)

RE.CNT 7 THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS RECORD

RE

- (1) Inhale Therapeutic Syst; WO 9632096 A 1996 CAPLUS
- (2) Inhale Therapeutic Syst; WO 9632149 A 1996
- (3) Inhale Therapeutic Syst; WO 9741833 A 1997 CAPLUS
- (4) Kuo, M; WO 0132144 A 2001 CAPLUS
- (5) Lavern, A; WO 0061178 A 2000 CAPLUS
- (6) Niven, R; WO 0113893 A 2001 CAPLUS
- (7) Yamashita, C; RESPIRATORY DRUG DELIVERY VI: BIOLOGICAL, PHARMACEUTICAL, CLINICAL AND REGULATORY ISSUES RELATING TO OPTIMIZED DRUG DELIVERY BY AEROSOL, THE INTERNATIONAL SYMPOSIUM, 6TH 1998, P483 CAPLUS